

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims:

1. (Original) A method of mitigating one or more symptoms associated with chronic consumption of a substance of abuse by a mammal, said method comprising:
administering to said mammal an effective amount of an adenosine receptor antagonist; and
an effective amount of a dopamine receptor antagonist;
wherein the effective amount of the adenosine receptor antagonist is lower than the effective amount of an adenosine receptor antagonist administered without said dopamine receptor antagonist.
- 2.-20. (Canceled).
21. (Original) A composition comprising an effective amount of an adenosine receptor antagonist; and an effective amount of a dopamine receptor antagonist, wherein the effective amount of the adenosine receptor antagonist is lower than the effective amount of an adenosine receptor antagonist administered without said dopamine receptor antagonist.
- 22.-35. (Canceled).
36. (Original) A method of mitigating one or more symptoms associated with withdrawal associated with cessation of consumption of a substance of abuse by a mammal, said method comprising:
administering to said mammal an effective amount of an adenosine receptor agonist;
and
an effective amount of a dopamine receptor agonist;
wherein the effective amount of the adenosine receptor agonist is lower than the effective amount of an adenosine receptor agonist administered without said dopamine receptor agonist.
- 37.-57. (Canceled).

58. (Original) A composition for mitigating a symptom of withdrawal from a drug of abuse, said composition comprising an effective amount of an adenosine receptor agonist; and an effective amount of a dopamine receptor agonist, wherein the effective amount of the adenosine receptor agonist is lower than the effective amount of an adenosine receptor agonist administered without said dopamine receptor agonist.

59.-77. (Canceled).

78. (Original) A method of mitigating one or more symptoms associated with chronic consumption of a substance of abuse by a mammal, said method comprising inhibiting expression or activity of a beta/gamma dimer.

79.-85. (Canceled).

86. (Original) A method of mitigating consumptive behavior or craving after withdrawal of a substance of abuse, said method comprising:

administering to a mammal an agent that increases effective adenosine levels or activity of an adenosine receptor in a concentration sufficient to mitigate said consumptive behavior or craving.

87.-92. (Canceled).

93. (Original) A method of mitigating consumptive behavior or craving during chronic consumption of a substance of abuse, said method comprising:

administering to a mammal engaging in said chronic consumption of a substance of abuse, an adenosine receptor antagonist in a concentration sufficient to mitigate said consumptive behavior or craving.

94. (Canceled).

95. (Original) A method of screening for an agent that modulates the effect of a substance of abuse on PKA activation in a mammalian cell, said method comprising:

contacting a mammalian test cell with a test agent; and

detecting the expression or activity of a beta/gamma dimer of said test cell wherein a difference in beta/gamma dimer expression or activity in said test cell as compared to beta/gamma dimer expression or activity in a control cell indicates that said test agent modulates the effect of a substance of abuse on PKA activation.

96.-117. (Canceled).

118. (Original) A method of screening for an agent that decouples dopamine receptor activity from an adenosine receptor pathway, said method comprising:

contacting a test cell comprising a dopamine receptor with a test agent;

detecting the expression or activity of a beta-gamma dimer wherein a decrease in beta/gamma dimer expression or activity in said cell as compared to beta/gamma dimer expression or activity in a control cell indicates that said test agent decouples dopamine receptor activity from an adenosine receptor pathway.

119. (Original) A method of prescreening for an agent that modulates the effect of a substance of abuse on PKA activation in a mammalian cell, said method comprising:

i) contacting a beta/gamma dimer or a nucleic acid that encodes a polypeptide comprising a beta/gamma dimer with a test agent; and

ii) detecting specific binding of said test agent to a beta/gamma dimer or to a nucleic acid that encodes a polypeptide comprising a beta/gamma dimer wherein specific binding indicates that said agent is a candidate agent modulates the effect of a substance of abuse on PKA activation in a mammalian cell.

120.-133. (Canceled).

134. (Original) A composition comprising an adenosine receptor antagonist and a dopamine receptor antagonist in a pharmacologically acceptable excipient.

135.-136. (Canceled).

137. (Original) A kit comprising:

a container containing an adenosine receptor antagonist; and

a container containing a dopamine receptor antagonist.

138.-141. (Canceled).

142. (Original) A composition comprising an adenosine receptor agonist and a dopamine receptor agonist in a pharmacologically acceptable excipient.

143.-144. (Canceled).

145. (Original) A kit comprising a container containing an adenosine receptor agonist; and a container containing a dopamine receptor agonist.

146. (New) The method of claim 1, wherein the effective amount of the dopamine receptor antagonist is lower than the effective amount of a dopamine receptor antagonist administered without said adenosine receptor antagonist.

147. (New) The method of claim 1, wherein the combined dosage of dopamine receptor antagonist and adenosine receptor antagonist is just sufficient to produce minimum activation of PKA in response to consumption of a substance of abuse.

148. (New) The method of claim 1, wherein the dopamine receptor antagonist is administered at a standard therapeutic dosage.

148. (New) The method of claim 1, wherein the dopamine receptor antagonist is administered at about a threshold dosage.

149. (New) The method of claim 1, wherein the dopamine receptor antagonist is administered at a sub-threshold dosage.

150. (New) The method of claim 1, wherein the adenosine receptor antagonist is administered at a standard therapeutic dosage.

151. (New) The method of claim 1, wherein the adenosine receptor antagonist is administered at about a threshold dosage.

152. (New) The method of claim 1, wherein the adenosine receptor antagonist is administered at a sub-threshold dosage.

153. (New) The method of claim 1, wherein said substance of abuse is selected from the group consisting of an opioid, a barbiturate, a cannabinoid, cocaine, an amphetamine, alcohol, and nicotine.

154. (New) The method of claim 1, wherein said dopamine receptor antagonist is selected from the group consisting of butaclamol, chlorpromazine, domperidone, fluphenazine,

haloperidol, heteroaryl piperidines, metoclopramide, olanzapine, perospirone hydrochloride hydrate, phenothiazine, pimozide, quetiapine, risperidone, sertindole, sulpiride, ziprasidone, and zotepine.

155. (New) The method of claim 1, wherein the effective dosage of the dopamine receptor antagonist is low enough to avoid causing an adverse symptom characteristically produced by administration of a dopamine receptor antagonist.

156. (New) The method of claim 155, where said adverse symptom is selected from the group consisting of tardive dyskensia, dystonia, and neuroendocrine (hormonal) disturbances.

157. (New) The method of claim 1, wherein said adenosine receptor antagonist is selected from the group consisting of PD 115,199; ZM 241385, quinazoline, 3-(3-hydroxyphenyl)-5H-thiazolo[2,3b]-guinazoline, 1,3-diethyl-8-phenylxanthine, and substituted phenylxanthines.

158. (New) The method of claim 1, wherein the effective dosage of the adenosine receptor antagonist is low enough to avoid causing an adverse symptom characteristically produced by administration of an adenosine receptor antagonist.

159. (New) The method of claim 158, where said adverse symptom is selected from the group consisting of sleep disorders, elevated heart rate, and arrhythmia.

160. (New) The method of claim 1, wherein the dopamine receptor antagonist and the adenosine receptor antagonist are administered sequentially.

161. (New) The method of claim 1, wherein the dopamine receptor antagonist and the adenosine receptor antagonist are administered simultaneously.

162. (New) The method of claim 1, wherein the dopamine receptor antagonist and the adenosine receptor antagonist are administered in a single unit dosage formulation.

163. (New) The method of claim 1, wherein said symptom is a chronic consumptive behavior.